

REMARKS

Response to Arguments and Amendments

The Examiner stated that Applicant's arguments filed March 6, 2006, with respect to the rejection of claims 11-22 under 35 USC §102(a), have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

Applicant appreciates the Examiner's diligence on this Application.

The Examiner stated further that due to Applicant's amendments and/or arguments, all claim objections and rejections under 35 USC §112 2nd paragraph are hereby withdrawn.

Applicant appreciate the Examiner's withdrawal of the 35 USC §112 2nd paragraph rejections.

Claim Rejections - 35 USC §102

Claims 11-32 are rejected under 35 U.S.C. §102(e) as being anticipated by Bolotin (U.S. Patent No. 6,591,486, hereinafter "Bolotin").

A Declaration under 37 CFR 1.132 is provided to overcome Bolotin by a showing that any invention disclosed but not claimed in Bolotin was derived from the inventor of this Application and is thus not the invention "by another".

Claims 11-18, 21-28, and 30-32 are rejected under 35 U.S.C. §102(e) as being anticipated by White (U.S. Patent No. 6,230,067, hereinafter "White").

Since citations to the claim limitations for each claim were not provided, Applicant has attempted to tie together the claim limitations and the Examiner's comments.

Regarding claim 11, Applicant respectfully traverses the rejection since the Applicant's claimed combination includes the limitation not disclosed in White of:

“the programming system adjacent to the input feeder”

The Examiner states in the Office Action of 4/10/06 (hereinafter the “Office Action”):

“The programming system adjacent to the input feeder . . . (116) (fig. 2)”

However, the Examiner has indicated that the White input feeder is the White device input 140 and that the White programming system is the White concurrent programming system 100. It is respectfully submitted from White FIG. 2 that the White device input 140 and the White concurrent programming system 100 are not “adjacent” but are on the opposite side of the processing station location 116 and the conveyor subsystem 110.

Further, with regard to claim 11, Applicant respectfully traverses the rejection since the Applicant's claimed combination includes the limitation not disclosed in White of:

“a programming system having a plurality of in-line sockets for positioning microdevices for programming;”

The Examiner states in the Office Action:

“the programming system having a plurality of in-line sockets (col. 5/ 1 9-24, col. 8/ 1 3-12)”

However, White does not mention sockets in White col. 5, lines 9-24, which states:

“concurrent programming subsystem 100 . . . includes multiple sites . . . for concurrently programming and testing multiple devices. An example . . . can be found in US Pat. No. 5,996,004 . . . “Programming” . . . by specifying a particular arrangement of gating logic connections (e.g., for a programmable logic array device).” [deletions for clarity]

Even the referenced USPN 5,996,004, which does mention sockets, does not disclose in-line sockets. The Examiner's reference to White col. 8, lines 3-12, relates to the pick and place subsystem 120 and also does not disclose or mention in-line sockets.

Also, with regard to claim 11, Applicant respectfully traverses the rejections since the Applicant's claimed combination includes the limitation not disclosed in White of:

“the input feeder responsive to communication with the control system to feed the unprogrammed microdevices”

It is respectfully submitted that a *prima facie* case has not been established because the above limitation has not been addressed.

Also, with regard to claim 11, Applicant respectfully traverses the rejections since the Applicant’s claimed combination includes the limitation not disclosed in White of:

“the programming system capable of positioning and programming the plurality of microdevices and communicating to the control system”

It is respectfully submitted that a *prima facie* case has not been established because the above limitation has not been addressed.

Also, with regard to claim 11, Applicant respectfully traverses the rejections since the Applicant’s claimed combination includes the limitation not disclosed in White of:

“the robot handling system responsive to communication with the programming system with the control system to take microdevices and place the microdevices on the assembly system.”

It is respectfully submitted that a *prima facie* case has not been established because the above limitation has not been addressed.

Based on the above it is respectfully submitted that claim 11 is allowable under 35 U.S.C. §102 (e) and is not anticipated by White because:

“It is by now well settled that the burden of establishing a *prima facie* case of anticipation resides with the Patent and Trademark Office” *Ex Parte Skinner*, 2 USPQ 2D 1788, 1788-89 (B.P.A.I. 1986).

Also, based on the above, it is respectfully submitted that claim 11 is allowable under 36 U.S.C. §102 (e) and is not anticipated by White because:

“Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*” [*emphasis added*] *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.* (730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984)(citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed Dir. 1983)))

Regarding claim 12, Applicant respectfully traverses the rejections since the Applicant's claimed combination includes the limitation not disclosed in White of:

“the handling system for moving microdevices from the input feeder and position the microdevices on the programming system.”

It is respectfully submitted that a *prima facie* case has not been established because the above limitation has not been addressed.

Regarding claim 13, Applicant respectfully traverses the rejection since the Applicant's claimed combination includes the limitations not disclosed in White of:

“the programming system has the plurality of in-line sockets parallel to a linear row of microdevices provided by the input feeder;”

The Examiner states:

“The programming system has the plurality of in-line sockets parallel to the linear row of micro devices provided by the input feeder (fig.2)”

However, White FIG. 2 clearly shows that the White concurrent programming system 100 does not have in-line sockets (does not even show sockets) parallel to any linear row of micro devices provided by the White device input 140.

Regarding claim 14, Applicant respectfully traverses the rejection since the Applicant's claimed combination includes the limitation not disclosed in White of:

“the input feeder and the programming system are collinear with the linear row of the input feeder collinear with the linear row of the programming system.”

The Examiner states:

“the input feeder and processing system are collinear with the linear row of the input feeder collinear with the linear row of the processing system (fig. 2)”

However, White FIG. 2 clearly shows that the White device input 140 and the White concurrent programming system 100 are not collinear and neither shows collinear rows.

Regarding claim 15, Applicant respectfully traverses the rejection since the Applicant's claimed combination includes the limitation not disclosed in White of:

“a transfer mechanism . . . for moving microdevices between the input feeder and the robotic handling system.”

The Examiner states:

“a transfer mechanism (110) operatively associated with the programming system (c. 6/l. 48-51)”

However, the White element 110 is the conveyor sub-system 110 which only moves printed circuit boards from one end of the conveyer to the other, as explained in White col. 6, lines 39-64, which states:

“Conveyor subsystem 110 interacts with the upstream machine to bring printed circuit boards into ILP system 20. Conveyor subsystem 110 also interacts with the downstream machine to provide a printed circuit board assembly thereto. . . Once conveyor subsystem 100 has been configured with velocity and acceleration limits, it is ordered by central control unit 130 to enter its processing loop to await the first board to be delivered. One example of such a processing loop is shown in FIGs. 4a-c.” [underlining and deletions for clarity]

Regarding claim 16, Applicant's respectfully traverses the rejections since the Applicant's claimed combination includes the limitations not disclosed in White of:

“the transfer mechanism is capable of moving microdevices between the programming system and the robotic handling system for pick up by the robotic handling system.”

It is respectfully submitted that the argument with regard to claim 15 is also applicable here.

Regarding claim 17, Applicant respectfully traverses the rejections since the Applicant's claimed combination includes the limitation not disclosed in White of:

“the transfer mechanism is capable of moving microdevices in a liner row perpendicular to the plurality of in-line sockets for pick up by the robotic handling system.”

The arguments applicable to claim 15 are also applicable here. In addition, it is respectfully submitted that the configuration of a linear row perpendicular to the plurality of in-line sockets is not disclosed in White.

Regarding claim 18, Applicant respectfully traverses the rejections since the Applicant's claimed combination includes limitations not disclosed in White of:

“the handling system is capable of moving a fixed plurality of microdevices simultaneously from the input feeder to the transfer mechanism; and

a transfer mechanism is capable of moving the fixed plurality of microdevices between the input feeder the programming system; and

the handling system is capable of moving the fixed plurality of microdevices simultaneously from the transfer mechanism to the programming system.”

It is respectfully submitted that a *prima facie* case has not been established because the above limitation have not been addressed.

Regarding claim 20, Applicant respectfully traverses the rejections since the Applicant's claimed combination includes the limitation not disclosed in White of:

“the transfer mechanism is capable of moving the microdevices in the opposite direction from which the linear row is provided by the input feeder.”

It is respectfully submitted that a *prima facie* case has not been established because the above limitation has not been addressed.

It is respectfully submitted that claims 21 – 28 and 30-31 are allowable for substantially the same reasons as respective claims 11 – 18 and 20. The remaining claims are believed allowable because they contain all the limitations of the claims from which they depend.

Based on all the above, it is respectfully submitted that claims 11-18, 21-28, and 30-32 are allowable under 35 U.S.C. §102(e) as not being anticipated by White.

Claim Rejections - 35 USC §103

Claims 19 and 29 are rejected under 35 U.S.C. §103(a) as being unpatentable over White (U.S. Patent No. 6,230,067, hereinafter “White”) in view of Ma (U.S. Patent No. 5,651,176, hereinafter “Ma”).

The Examiner states:

“White discloses all the limitations of the claim (see ¶4), but does not expressly disclose a second input feeder.

Ma teaches a second input feeder for the purpose of allowing for synchronous mass production and thus the reduction of delays in circuit board fabrication (C3/L5-19).

At the time of invention it would have been obvious to one having ordinary skill in the art to employ a second input feeder, as taught by Ma, in the device of White, for the purpose of allowing for synchronous mass production and thus the reduction of delays in circuit board fabrication.”

It is respectfully submitted that it would be obvious to those having ordinary skill in the art that the device input 140 is not a limitation on the speed of the White system. The limitation on speed is due to the single pick and place system and the single conveyor subsystem. Thus, adding a second device input would not allow for synchronous mass production or the reduction of delays in circuit board fabrication. Therefore, it is respectfully submitted that claims 19 and 29 are allowable under 35 U.S.C. 103(a) as being patentable over White in view of Ma because the Federal Circuit Court has repeatedly held that:

“a “teaching or suggestion or motivation” to combine prior art references is an “essential evidentiary component” of any obviousness holding.” C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1351-52 (Fed. Cir. 1998). See also *In re Dembiczak*, 175 F.3d 994, 998 (Fed. Cir. 1999).

Based on the above, it is respectfully submitted that claims 19 and 29 are allowable under 35 U.S.C. §103(a) as being patentable over White in view of Ma.

Other

The Examiner stated that the prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

The other references cited by the Examiner showing the prior art have been considered and are not believed to disclose, teach, or suggest, either singularly or in combination, Applicants' invention as claimed.

Claims 13 and 23 have been amended to add "row", which is used elsewhere after "linear". No new matter has been added.

Conclusion

In view of the above, it is submitted that the claims are in condition for allowance and reconsideration of the rejections is respectfully requested. Allowance of claims 11-31 at an early date is solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including any extension of time fees, to Deposit Account No. 50-0374 and please credit any excess fees to such deposit account.

Respectfully submitted,



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